City of Lafayette Staff Report

For:	City Council
By:	Leah C. Greenblat, Transportation Planner
Date Written:	February 27, 2008
Meeting Date:	March 10, 2007
Subject:	Consideration of Using Yellow-Green Colored, In-Road, Crosswalk Paddle Signs

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Introduction / Discussion

Over the past few years, the City has installed at several locations a particular device to enhance pedestrian safety. The in-road paddle signs have been installed at uncontrolled crosswalk locations to heighten motorists' awareness of the crosswalk and encourage obedience of traffic laws to yield to pedestrians. Due to existing City Council policy restricting the use of florescent yellow-green signs to only school zones, the City's Public Works Services Division has been requiring its sign supplier to retrofit the factory-made, in-road, paddle signs to meet the City's color requirement. At its February 19, 2008 meeting, the Circulation Commission discussed a report, attached, prepared by staff on the background of the in-road, crosswalk warning paddle signs that the City currently uses. Following its discussion, the Commission unanimously concurred with staff's recommendation that given that the florescent yellow-green, in-road sign paddle is now the standard in California, its reduced cost and probable longer life-span, the City Council should modify its existing policy to permit the use of the florescent yellow-green, in-road sign paddles throughout the City. The proposed change in policy would not alter the existing policy on color of conventional road-side signs. The current policy of permitting florescent yellow-green road-side signs only in school zones would remain unchanged.

Fiscal Impact

Please see the attached staff report for a discussion of the fiscal impacts of the proposed policy change.

Recommendation

1. Modify the existing City Council policy to permit the use of the florescent yellow-green in-pavement sign paddles throughout the City while maintaining the use of road-side florescent yellow-green signs in school zones only.

Attachments

1. February 13, 2008 staff report
2. Excerpt from February 19, 2008 draft Circulation Commission minutes

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Introduction / Discussion

An in-pavement crosswalk warning sign paddle exists at the crosswalk on St. Mary's Road in front of the Community Center. This sign has been frequently damaged, requiring replacement much more often than what one would expect for such a device. This has caused staff to investigate the matter, and we have found that the cause could be related to the way that these signs are made to comply with Lafayette's color specifications. Staff recommends reconsideration of the policy on sign colors to address this issue.

In August of 2000, the City Council provided staff with a clarification on the Council's desired use of florescent yellow-green pedestrian crossing signs. At that time, the signs were just beginning to be used more widely. The Council adopted a policy that florescent yellow-green signs would be confined to school zones.

Over the last ten years, Caltrans has sanctioned a number of changes and additions to the traffic engineer's repertoire for addressing signing and striping. The use of in-road, crosswalk warning sign paddles are now allowed and the use of a florescent, yellow-green color scheme has become more common. In August of 2006, Caltrans adopted the California Manual on Uniform Traffic Control Devices (CA MUTCD) which contains the standards and guidelines for roadway signing and striping. According to the CA MUTCD, the standard for in-street, pedestrian-crossing sign paddles shall be "a white and/or florescent yellow-green background." For other types of pedestrian crosswalk signage, a jurisdiction still has the option of using conventional yellow or the florescent yellow-green signs, but the CA MUTCD recommends a systematic approach to selecting which color to use. The City Council's earlier direction to only use the florescent yellow-green signs in school zones appears to be consistent with the current CA MUTCD. However, the current CA MUTCD has now promulgated the use of the florescent paddles as an industry standard.

ITEM 5.A.2

Public Works Services staff has also brought to our attention a number of issues they have experienced with the yellow background in-pavement sign paddles. The florescent units are readily available and are manufactured in-bulk at a factory. Newer versions of the units are silk screened directly onto the plastic sign paddle. Since the City requires the conventional yellow color, the local sign provider has to retrofit the factory units so that they meet the City's specifications. This retrofit significantly affects the durability of the paddles and has resulted in the need to replace the customized units more frequently. Public Works is now experimenting with the application of a yellow vinyl to metal plates and then attaching the metal plates to the plastic paddle. Although the base of the in-pavement unit has a spring which provides some give when it is hit, the use of metal plates may potentially cause some damage to a vehicle that hits it.

The background colored area of the in-pavement sign paddles is relatively small. The entire unit is only approximately 12 inches wide and 43 inches high. The florescent yellow-green is only used as the border; the remainder of the sign paddle is composed of a white background, see attached drawing. Staff does not believe the florescent yellow-green background will have as prominent of an appearance as a standard crosswalk warning sign which typically measures four square feet or more.

Fiscal Impact

The standard florescent yellow-green sign paddle is typically available in stock for approximately $200. A post, base, shipping and handling adds approximately $130 to the material costs. The customized yellow counterpart is a special order that takes approximately three weeks to manufacture. The sign costs $350 each plus the $130 in other expenses. The cost of each installation or replacement varies from $300-$600 depending on the location of the device and whether traffic control is needed. If indeed the factory-made florescent yellow-green units do withstand more wear and tear and last longer, then the City would incur lower material costs plus less frequent installation costs. Public Works estimates that they have replaced the in-pavement sign paddle on St. Mary's Road at the Community Center driveway six times in the last year, where one would expect such a sign to require no maintenance for at least one to three years.

Recommendation

1. Given that the florescent yellow-green in-pavement sign paddle is now the CA MUTCD standard, its reduced cost and probable longer life-span, staff recommends that the Commission forward a recommendation to the City Council to modify its existing policy to permit the use of the florescent yellow-green in-pavement sign paddles throughout the City.

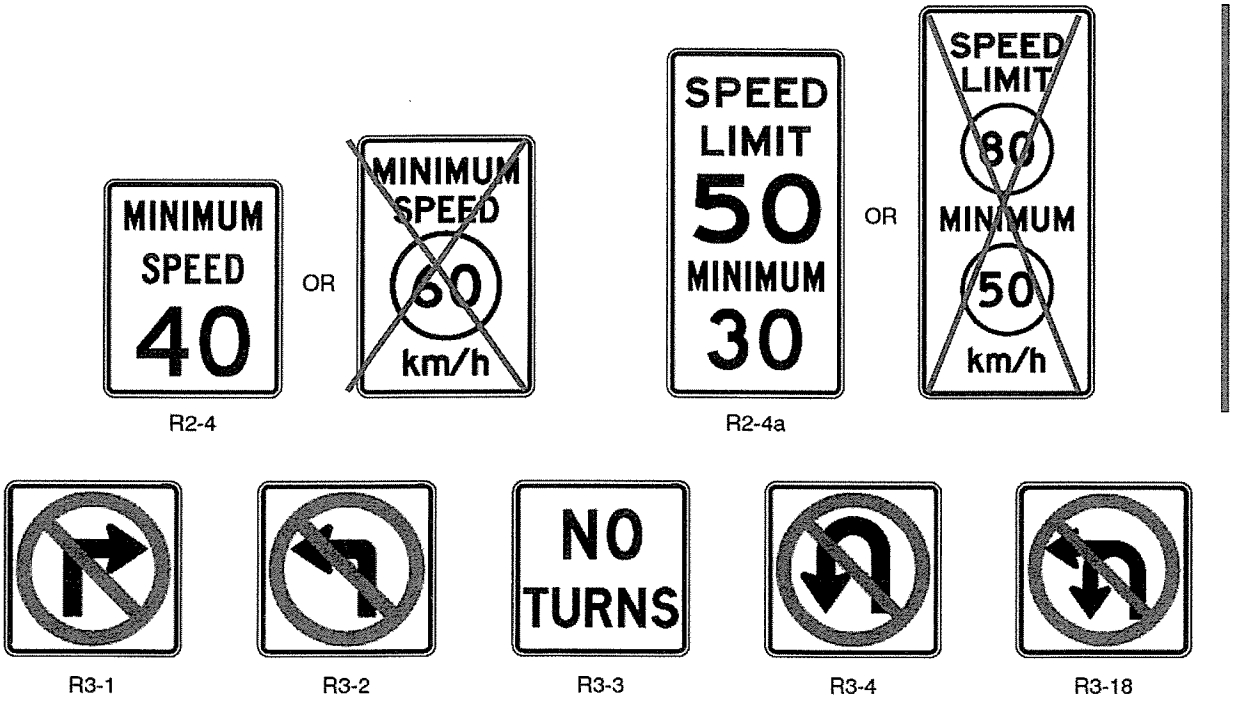
Attachments

1. Excerpts from California MUTCD

Figure 2B-2. Unsignalized Pedestrian Crosswalk Signs

R1-5 R1-5a R1-6 R1-6a

Figure 2B-3. Speed Limit and Turn Prohibition Signs



R2-4 R2-4a

R3-1 R3-2 R3-3 R3-4 R3-18

Guidance:

Yield lines, when used to supplement a YIELD sign, should be located at a point where the road user should yield (see Section 3B.16).

Where two roads intersect at an acute angle, the YIELD sign should be positioned at an angle, or shielded, so that the legend is out of view of traffic to which it does not apply.

Except at roundabout intersections, where there is a marked crosswalk at the intersection, the YIELD sign should be installed in advance of the crosswalk line nearest to the approaching traffic.

At a roundabout intersection, to prevent circulating vehicles from yielding unnecessarily, the face of the YIELD sign should not be visible from the circulatory roadway.

Option:

At wide-throat intersections or where two or more approach lanes of traffic exist on the signed approach, observance of the yield control may be improved by the installation of an additional YIELD sign on the left side of the road and/or the use of a yield line. At channelized intersections, the additional YIELD sign may be effectively placed on a channelizing island.

Section 2B.11 Yield Here To Pedestrians Signs (R1-5, R1-5a)

Standard:

If yield lines are used in advance of an unsignalized marked midblock crosswalk, Yield Here To Pedestrians (R1-5 or R1-5a) signs (see Figure 2B-2) shall be placed 6.1 to 15 m (20 to 50 ft) in advance of the nearest crosswalk line (see Section 3B.16 and Figure 3B-15).

Section 2B.12 In-Street Pedestrian Crossing Signs (R1-6, R1-6a)

Option:

The In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) sign (see Figure 2B-2) may be used to remind road users of laws regarding right of way at an unsignalized pedestrian crossing. The legend STATE LAW may be shown at the top of the sign if applicable. The legends STOP FOR or YIELD TO may be used in conjunction with the appropriate symbol.

Support:

The In-Street Pedestrian Crossing (R1-6a) sign is deleted as a stop is not required in California per CVC 21950.

Guidance:

If an island (see Chapter 3G) is available, the In-Street Pedestrian Crossing sign, if used, should be placed on the island.

Standard:

The In-Street Pedestrian Crossing sign shall not be used at signalized locations.

The STOP FOR legend shall only be used in States where the State law specifically requires that a driver must stop for a pedestrian in a crosswalk.

If used, the In-Street Pedestrian Crossing sign shall have a black legend (except for the ~~red STOP or~~ YIELD sign symbols) and border on either a white and/or fluorescent yellow-green background.

If the In-Street Pedestrian Crossing sign is placed in the roadway, the sign support shall comply with the breakaway requirements of the latest edition of AASHTO's "Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals" (see Page i).

Support:

The Provisions of Section 2A.18 concerning mounting height are not applicable for the In-Street Pedestrian Crossing sign.

Option:

The In-Street Pedestrian Crossing sign may be used seasonably to prevent damage in winter because of plowing operations, and may be removed at night if the pedestrian activity at night is minimal.

mounted signs and a Double Diagonal Arrows (W66B(CA)) plaque (see Figure 2C-11(CA) for overhead mounted signs.

When used at a cattle guard, the BUMP (W8-1), DIP (W8-2) or Slippery When Wet (W8-5) signs shall be supplemented with a diagonal downward pointing arrow (W16-7p) plaque (see Figure 2C-11) showing the location of the cattle guard.

Option:

The crossing location may be defined with crosswalk markings (see Section 3B.17).

Pedestrian, Bicycle, and School signs and their related supplemental plaques may have a fluorescent yellowgreen background with a black legend and border.

Guidance:

When a fluorescent yellow-green background is used, a systematic approach featuring one background color within a zone or area should be used. The mixing of standard yellow and fluorescent yellow-green backgrounds within a selected site area should be avoided.

Nonvehicular signs should be used only at locations where the crossing activity is unexpected or at locations not readily apparent.

Support:

Refer to CVC 21805 for the Equestrian (W11-7) sign.

Refer to CVC 21364 and 21365 for the Cattle (W11-4) sign.

Standard:

The Pedestrian Crossing symbol (W11A-2) sign (W54(CA)) is deleted. The Pedestrian Crossing (W11-2) sign and a diagonal downward pointing arrow (W16-7P) plaque or Double Diagonal Arrows (W66B(CA)) plaque combination shall be used instead.

Option:

The existing W11A-2 signs may remain in place until maintenance is required or existing inventory is depleted.

Guidance:

The Deer Crossing (W11-3) sign should be used only after confirmation from a Department of Fish and Game warden having jurisdiction in the area that a substantial problem exists.

Option:

The Migrating Bears (SW59(CA)) sign may be used in advance of an area known to be inhabited by bear and there have been reported instances where bears are crossing the roadway.

Guidance:

If used, the NEXT XX MILES supplemental plaque should be placed at approximately 8 km (5 mi) intervals, or when intersecting major traffic generators.

Option:

The DEAF CHILDREN NEAR (SW38(CA)) sign may be used on city streets or county roads to indicate that a deaf child is near. Refer to CVC 21351.7.

Guidance:

The SENIOR CITIZEN FACILITY (SW50(CA)) sign should not be used alone.

Option:

The SW50(CA) sign may be used in combination, above the Speed Limit (R2-1 (25,20 or 15)) sign on any street or road, other than a State highway, with a speed limit greater than 40 km/h (25 mph) that is adjacent to a senior citizen facility. Refer to CVC 22352 and 22358.4.

Support:

See Figure 2C-10(CA) for SW38(CA), SW50(CA) and SW59(CA) signs.

Section 2C.42 Playground Sign (W15-1)

Option:

The Playground (W15-1) sign (see Figure 2C-10) may be used to give advance warning of a designated children's playground that is located adjacent to the road. The Playground sign may have a fluorescent yellow-green background with a black legend and border.

Commissioner Poling said she supports staff's recommendation also. She is familiar with the area and the angle of the crossing. This is a high traffic section of road and some safety measures are needed. The triangles would be visible along with signs. She feels a paddle could be easily hit and is probably not something to try at this location.

Vice Chair Hughes said that a trail crossing sign in the westbound direction seemed useless.

Mr. DeLeuw responded that all signs that are currently in place would be left there along with the additional signs.

Chair Ross said he supports staff's recommendations.

Commissioner Holit asked if there would be a benefit to having signs on both sides of the road in both directions as this might alert someone coming down the trail to the crosswalk.

Mr. DeLeuw said he believes his recommendations will work the way they are. He feels another sign on the other side of the road would seem strange on a 2-way road and would not recommend doing this. As far as raised joint markers as suggested by Vice Chair Hughes, Mr. DeLeuw did not think they would be noticed.

Mr. Clarkson said that cars do stop on St. Mary's because of the striping that was installed.

Vice Chair Hughes moved and Commissioner Wood seconded to forward a recommendation to Council to install signing and striping improvements at the Lafayette-Moraga Trail crossing on Glenside Drive, south as outlined in Mr. DeLeuw's memo of February 12, 2008. The motion was approved by unanimous voice vote.

Ms. Greenblat said this would next go to Council within the next month. As this item would not be re-noticed, interested parties could contact Ms. Greenblat for the exact date when it will go to Council, and that this item will likely be on the Consent Calendar.

b. Consideration of Using Yellow-Green Colored, In-Road, Crosswalk Paddles

Ms. Greenblat said that in August 2000, the Circulation Commission recommended the use of fluorescent yellow-green pedestrian crossing signs. Council directed staff to only use these yellow-green signs at school crossing locations. The standard for California now is the fluorescent yellow-green color scheme on crosswalk paddles. Signs for paddles that are installed outside of school zones in Lafayette must be specially made. The vendor must retrofit the factory units to meet the City's specifications, which affects the signs' durability and resulted in more frequent replacement of the signs. There is also a delay in getting the signs made. Staff is recommending that since the fluorescent yellow-green paddle signs which are now the standard in California, cost less than retrofitting the signs, and are more durable and longer lasting, that Council modify its existing policy and permit the use of the fluorescent yellow-green paddles signs throughout the City.

There was no public comment on this item.

Commissioner Poling asked about the maintenance issue with the signs.

Ms. Greenblat replied that the paddles are made of plastic and the yellow reflective material used to retrofit the sign is designed to adhere to metal and not plastic. Consequently, the material does not stick as well.

Commissioner Poling asked if these sign changes were intended just for paddles and not other pedestrian signs.

Ms. Greenblat replied they were just for the paddles.

Commissioner Holit moved and Commissioner Wood seconded approval of staff's recommendation to forward a recommendation to Council that they modify their existing policy and permit the use of fluorescent yellow-green in-pavement sign paddles throughout the City and not just in school zones. The motion was approved by unanimous voice vote.

7. Staff Reports

a. Update on Recent Council Actions

Ms. Greenblat had nothing to report.

8. Commissioner and BPAC Reports

a. Update on Downtown Strategy Project

Vice Chair Hughes said there was a meeting of the Downtown Strategy Project committee the week of the 12th. WRT presented a lot of material at that meeting. Vice Chair Hughes received an email with comments from Commissioner Hiden, which she also sent to Ann Meredith and City Council. WRT presented several options that would straighten out Moraga Road with different landscape and development designs. Maps of these options were passed around to the Commissioners. Comments from those who attended this meeting said that the acoustics in the room were terrible. People at each breakout session had difficulty hearing. Tables 3 and 4 still had lots of questions when they had to move. (Table 1 was a session on traffic, Table 2-maps on future expansion and land use; Table 3-economics; Table 4-future of the downtown core; Table 5-carbon footprint). He feels there was an information overload. Speakers at each table could not keep up with the number of questions being asked. There were random conversations at the tables and didn't feel that notes were adequately taken at the tables. He feels this was a bust and should be done-over.

Ms. Greenblat, who also attended this meeting, said that she didn't think the contractor brought the audience with them. There was a lot of information within short time constraints. She suggested having people chose 3 out of 5 tables so that they could concentrate on what they are particularly interested in rather than constantly moving to another table.

Vice Chair Hughes suggested holding these sessions on a Saturday with more time allotted.

Ms. Greenblat suggested that Vice Chair Hughes, as the Commission's representative on this committee, forward these comments to Ann Meredith.

Vice Chair Hughes suggested that there be 2 people at each table: one to take notes and the other to answer questions.

9. Adjournment

Chair Ross adjourned the meeting at 8:32 PM to the regular Circulation Commission meeting on March 3, 2008 at 7:00 PM in the Manzanita Room.

ATTEST: APPROVED: